

Fig.1 The DNA polymerase assay, non-radioactive, measures the ability of DNA polymerase to incorporate modified nucleotides into freshly synthesized DNA. The detection of synthesized DNA as a parameter for DNA polymerase activity follows a sandwich ELISA protocol. The absorbance of the samples is directly correlated to the level of DNA polymerase activity in the sample. HBV-WT: wild-type HBV polymerase; HBV-M: mutant HBV polymerase containing "Type I mutation" (L528M+M552V) associated with lamivudine resistance; PC: positive control; NC: negative control.

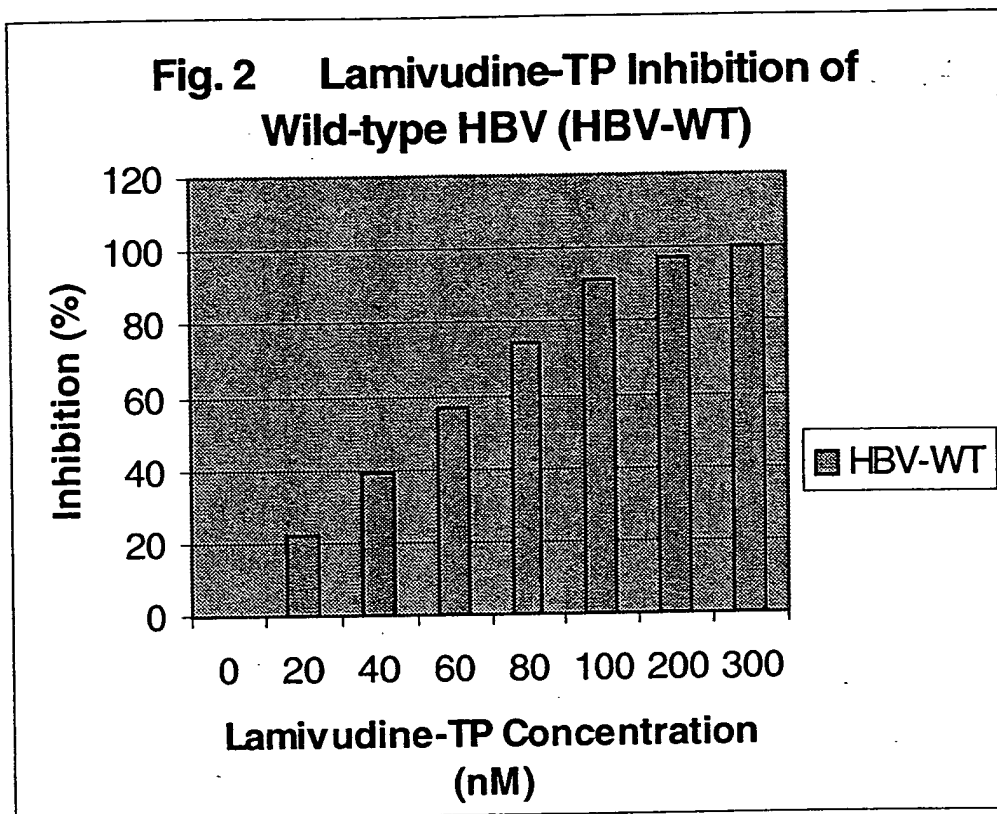


Fig. 2 Inhibition of wild-type HBV polymerase activity by lamivudine-TP. Lamivudine-TP was added to the polymerase assay in the final concentration of 0, 20, 40, 60, 80, 100, 200, 300 nM, respectively. Inhibition (%) of DNA polymerase activity was plotted versus drug concentration.

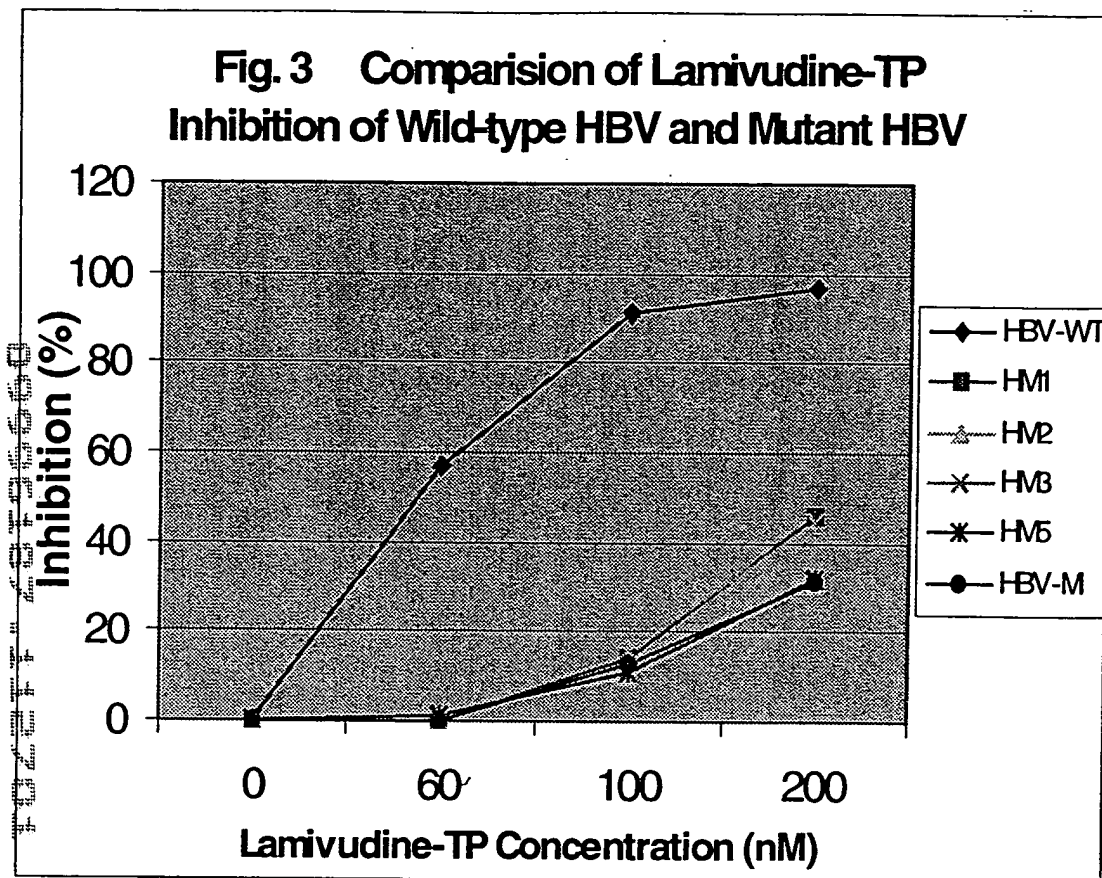


Fig. 3 Lamivudine-TP inhibition of wild-type HBV polymerase activity was compared to the inhibition of mutant HBV polymerase activity. Lamivudine-TP was added to the polymerase assay in the final concentration of 0, 60, 100, 200 nM respectively. Inhibition (%) of DNA polymerase activity was plotted versus drug concentration. HBV-WT: wild-type HBV polymerase; HM1 and HM3: mutant HBV polymerase containing "Type II mutation" (M552I) associated with lamivudine resistance; HM2, HM5 and HBV-M: mutant HBV polymerase containing "Type I mutation" (L528M+M552V) associated with lamivudine resistance.